

## CLAIMS

### What is claimed is:

1. A method for examining a signal supply apparatus in which signals having specified voltages supplied from a plurality of signal supply sources are subject to impedance conversion, respectively, by a plurality of impedance conversion devices, and supplied to a plurality of output lines, respectively, the method comprising:

short-circuiting each of the plurality of output lines upon examination; and  
comparing a current value detected on the short-circuited lines and a specified current value to thereby determine whether the signal supply apparatus is good or bad.

2. A method for examining a signal supply apparatus in which signals are subject to impedance conversion by a plurality of impedance conversion devices, respectively, and supplied to a plurality of output lines, the method comprising:

short-circuiting each of the plurality of output lines upon examination; and  
comparing a composite current consumption value for the plurality of impedance conversion devices and a specified current value to determine whether the signal supply apparatus is good or bad.

3. A signal supply apparatus examined by the method according to claim 1, the apparatus comprising:

a plurality of switching elements provided for the corresponding respective plurality of output lines;

a test terminal for inputting a test signal that controls operation of each of the plurality of switching elements; and

a detection terminal that is connected to the short-circuited lines.

4. A signal supply apparatus examined by the method according to claim 2, the apparatus comprising:
  - a plurality of switching elements provided for the corresponding respective plurality of output lines;
  - a test terminal for inputting a test signal that controls operation of each of the plurality of switching elements;
  - a short-circuit line that short-circuits the plurality of output lines when the plurality of switching elements are operated; and
  - a detection terminal for detecting the composite current consumption value.
5. A semiconductor device including the signal supply apparatus according to claim 3.
6. A data line driver IC wherein the signal supply apparatus of claim 3 is used as a driver device to drive each of a plurality of data lines in a display section using electro-optical elements.
7. A data line driver IC according to claim 6, wherein, after a voltage is supplied to the test terminal and each of the plurality of switching elements is operated, a voltage with a voltage width range corresponding to  $\pm(\text{LSB})/2$  with respect to a signal having the specified voltage to be supplied to the electro-optical elements is supplied through the detection terminal to the short-circuit line, and a minimum value among the current values detected at the detection terminal in response thereto is compared with a specified current value to make a good-or-bad determination.
8. A data line driver IC according to claim 7, wherein the specified voltage is set as a voltage that is supplied to the electro-optical element when the display section displays an intermediate gradation.
9. An electro-optical apparatus comprising the data line driver IC of claim 6.

10. An electronic apparatus comprising the electro-optical apparatus of claim 9.